

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER OF PATENTS AND TRADEMARKS Wishington, DC 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09-777,682	02 07 2001	Yuji Isoda	Q61219	3337
7	590 09 27 2002			
SUGHRUE, MION, ZINN MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W.			EXAMINER	
			LEE, SHUN K	
Washington, DC 20037-3202			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 09/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)						
•	_	09/777,682	ISODA, YUJI						
Office Action Summary		Examiner	Art Unit						
		Shun Lee	2878	in					
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
THE I - Exte - If the - If NC - Failu - Any I earne	ORTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. It is period for reply specified above is less than thirty (30) days, a repidence for reply is specified above, the maximum statutory period re to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a re y within the statutory minimum of thirty will apply and will expire SIX (6) MON e, cause the application to become AB	eply be timely filed y (30) days will be considered timel THS from the mailing date of this or ANDONED (35 U.S.C. § 133).						
Status	Decreasive to communication (a) filed on 20	Iuly 2002							
1)[Responsive to communication(s) filed on 29.								
2a)□	, =	nis action is non-final.	tora proposution as to th	no morito io					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims									
·	Claim(s) 1-28 is/are pending in the application	1.							
•	4a) Of the above claim(s) <u>5 and 17-24</u> is/are withdrawn from consideration.								
6)	6) Claim(s) 1-4,6,12 and 25-28 is/are rejected.								
7)	Claim(s) 13 is/are objected to.								
8)	Claim(s) are subject to restriction and/c	r election requirement.							
Applicati	ion Papers								
9)	The specification is objected to by the Examine	er.							
10)⊡ The drawing(s) filed on <u>07 February 2001</u> is/are: a)⊡ accepted or b)⊠ objected to by the Examiner.									
	Applicant may not request that any objection to the								
11) 🔲	The proposed drawing correction filed on	_ is: a) ☐ approved b) ☐ d	isapproved by the Examin	er.					
If approved, corrected drawings are required in reply to this Office action.									
12) The oath or declaration is objected to by the Examiner.									
•	ınder 35 U.S.C. §§ 119 and 120								
	13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).								
a)	a)⊠ All b) Some * c) None of:								
	1. Certified copies of the priority documents have been received.								
	2. Certified copies of the priority documents have been received in Application No								
* 5	 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 								
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).									
a) The translation of the foreign language provisional application has been received. 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.									
Attachmen		·							
2) 🔲 Notic	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u>	5) Notice of I	Summary (PTO-413) Paper No nformal Patent Application (PT						

Art Unit: 2878

DETAILED ACTION

Election/Restrictions

- Applicant's election without traverse of species I of group I (claims 1-4, 6-10, 12-16, 25-28) in Paper No. 6 is acknowledged.
- 2. Claims 5 and 17-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Information Disclosure Statement

3. The listing of references in the specification (pg. 3, 16, and 26) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 70b (Figs. 3, 5b, 5c, and 5d), 82 (Fig. 8), and 22 (Fig. 9). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Art Unit: 2878

5. The drawings are objected to because: in Fig. 10, "(kg/cm²)" should probably be --PRESSURE (kg/cm²)--. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

- 6. The disclosure is objected to because of the following informalities: "21" in lines 11, 12, and 16 on pg. 39 should probably be --22-- (see Fig. 9). Appropriate correction is required.
- 7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

8. Claim 13 is objected to because of the following informalities: Claim 13 lacks a period (*i.e.*, each claim begins with a capital letter and ends with a period; see MPEP 608.01(m)). Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 recites the limitation that the <u>alkali halide</u> represented by MX in formula (I) <u>is</u> potassium which fails to specify the halogen in the alkali halide and is thus indefinite.

Art Unit: 2878

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 11. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herron *et al.* (US 5,556,716) in view of Kesting (US 4,450,126).

In regard to claims **1-4**, Herron *et al.* disclose a radio-conductive material in the form of a nano-composite (column 4, line 62 to column 5, line 2) comprising nylon (column 5, lines 34-46) and inorganic material (*e.g.*, bismuth iodide; column 4, lines 55-61) having radiation absorbing power (column 3, lines 29-33). The radio-conductive material of Herron *et al.* lacks an explicit description that the nylon is an alcohol-soluble nylon (*e.g.*, composite material of nylon 6 and nylon 66). Nylons are well known in the art. For example, Kesting teaches (column 1, lines 11-38) that an alcohol-soluble nylon such as a composite material of nylon 6 and nylon 66 has high burst strengths and flexibilities. Therefore it would have been obvious to one having ordinary skill in the art to provide an alcohol-soluble nylon such as a composite material of nylon 6 and nylon 66 as the nylon in the solid sensor of Herron *et al.*, in order to obtain a radio-conductive film (60) having high burst strengths.

In regard to claim **6** which is dependent on claim 1, Herron *et al.* also disclose (column 1, line 53 to column 2, line 4) a solid sensor having a radio-conductive layer formed of a radio-conductive material defined in claim 1.

Application/Control Number: 09/777,682

Art Unit: 2878

12. Claims 25, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herron *et al.* (US 5,556,716).

In regard to claims **25** and **26**, Herron *et al.* disclose (column 1, line 53 to column 2, line 4; Fig. 1) a solid sensor comprising a radio-conductive layer (60) formed of inorganic/organic composite material (*e.g.*, bismuth iodide/nylon composite material; column 4, lines 55-61; column 5, lines 34-46) and an electrode (70) provided on the radio-conductive layer (60) and that the electrode (70) comprises a metal (column 6, lines 33-38). The solid sensor of Herron *et al.* lacks an explicit description that the metal is indium. However, metals such as indium (see for example, Merriam-Webster's Collegiate[®] Dictionary, Tenth Edition) are well known in the art. Therefore it would have been obvious to one having ordinary skill in the art to provide indium as the metal for the electrode (70) in the solid sensor of Herron *et al.*, in order to form a metallic conductive electrode.

In regard to claim **28** which is dependent on claim 25, Herron *et al.* also disclose (column 1, line 53 to column 2, line 4) a radiation image read-out apparatus comprising the solid sensor defined in claim 25 and a read-out means for reading out a radiation image recorded on the solid sensor as a latent radiation image.

13. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herron *et al.* (US 5,556,716) in view of Kesting (US 4,450,126).

In regard to claim 27 which is dependent on claim 25, Kesting is applied as in claim 1 above.

Art Unit: 2878

Allowable Subject Matter

14. Claims 7-11 and 14-16 are allowed.

15. Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the

limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: the instant application is deemed to be directed to an nonobvious improvement over the invention patented in US Patent 5,556,716. The improvement comprises in combination with other recited elements, $x \cdot MX$ wherein M represents at least one alkali metal selected from the group consisting of Li, Na, K, Rb and Cs, X represents at least one halogen selected from the group consisting of F, Cl, Br and I, and the ratio x by weight of MX to Bil₃ is $0 < x \le 1$ or $0 < x \le 0.2$.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Tuesday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Application/Control Number: 09/777,682

Art Unit: 2878

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878

SL September 19, 2002